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FIG. 1

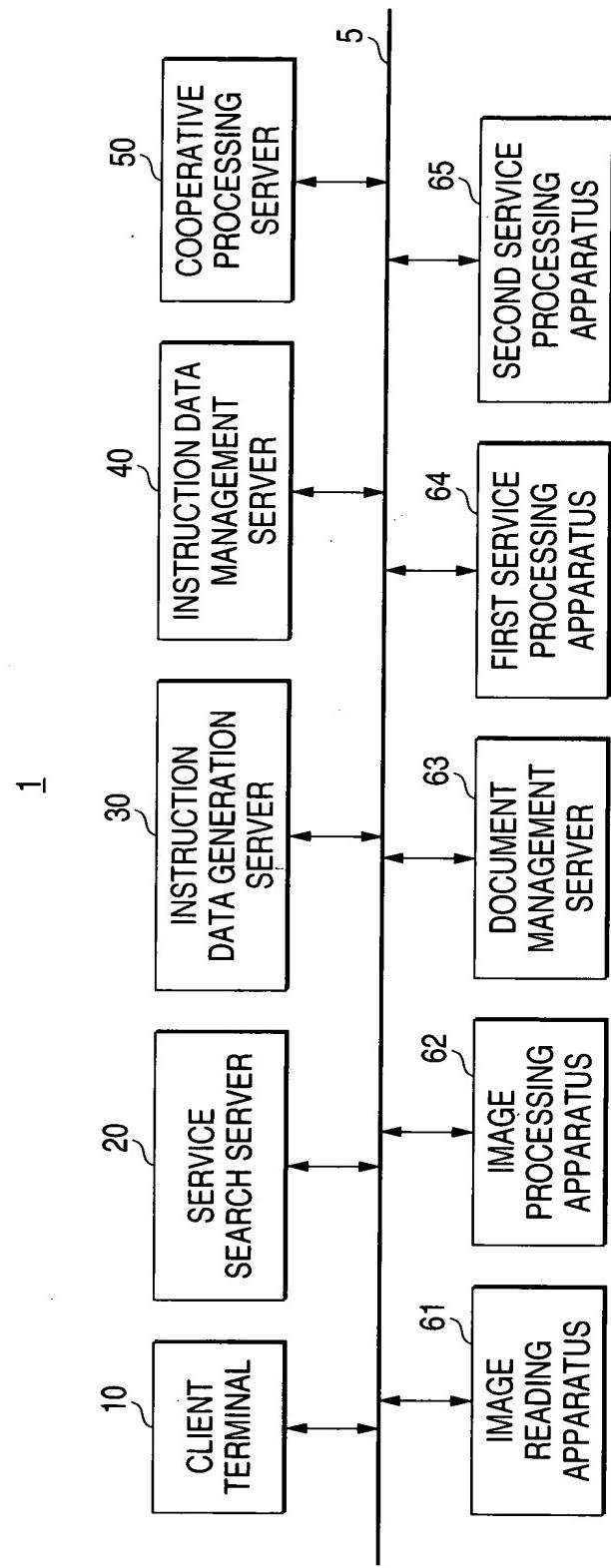


FIG. 2

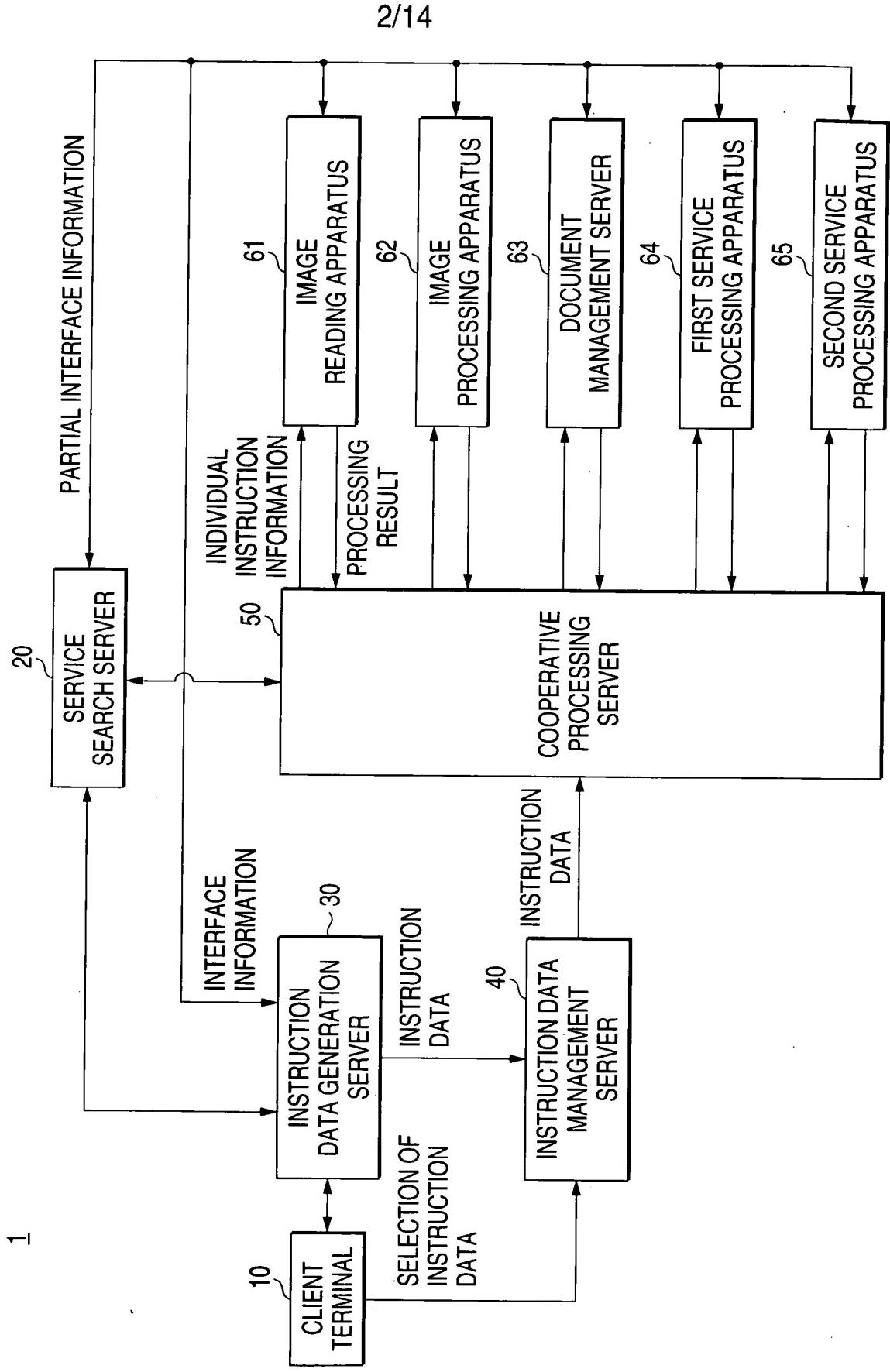


FIG. 3

SERVICE CLASS
SERVICE NAME
SERVICE ICON
SERVICE LOCATION INFORMATION
INPUT
OUTPUT
PARAMETER RESTRICTION RULES
SERVICE LOCATION
METHOD NAME
INVOCATION SCHEME
IMPLICIT ELEMENTS

FIG. 4

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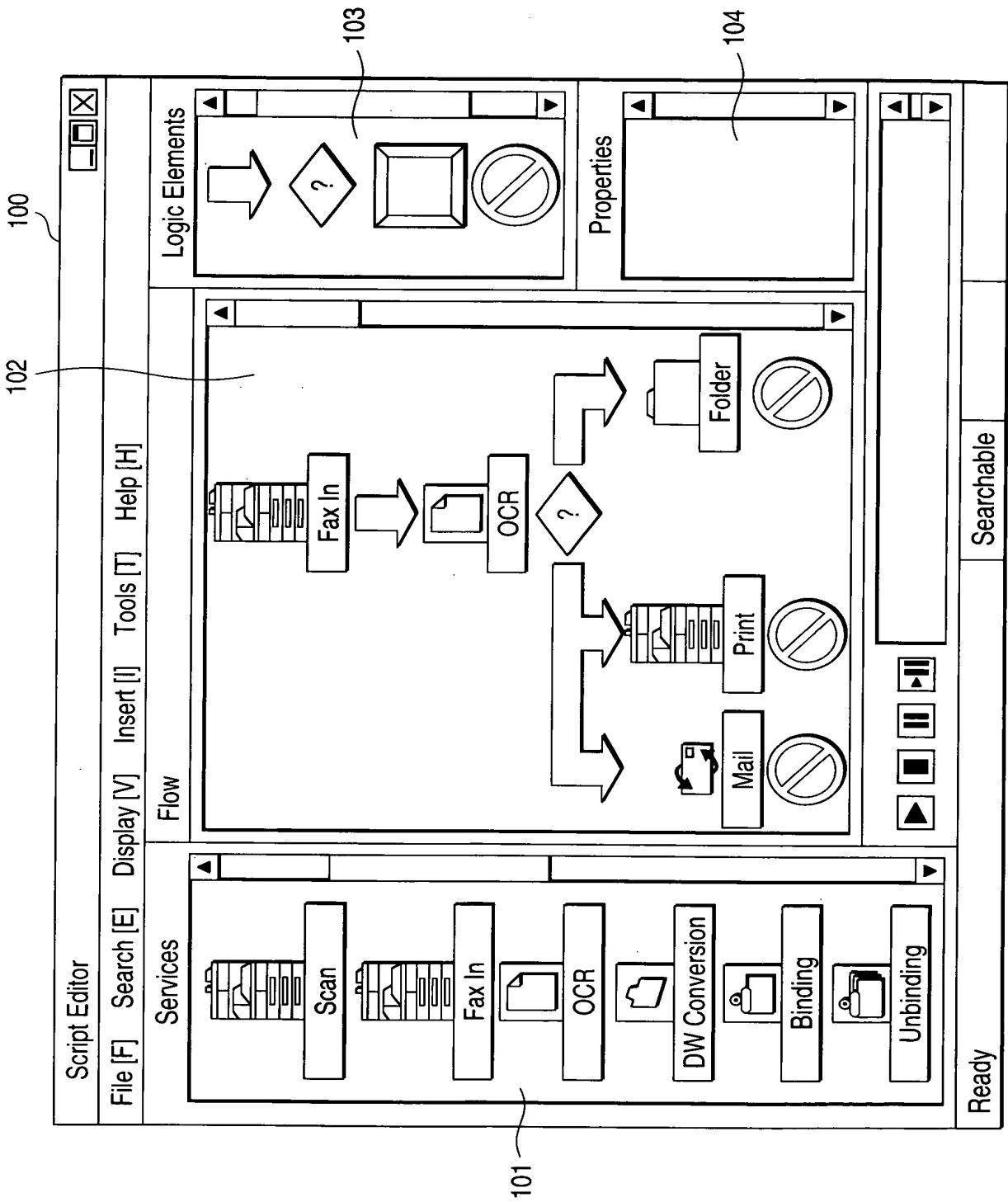


FIG. 5

SERVICE CLASS
SERVICE NAME
SERVICE ICON
SERVICE LOCATION INFORMATION
INPUT
OUTPUT
PARAMETER RESTRICTION RULES
SERVICE LOCATION
METHOD NAME
INVOCATION SCHEME
IMPLICIT ELEMENTS
FLOW (INVOKE, MAP, METHOD) (CONTROL STRUCTURE, LOGICAL OPERATIONS)

FIG. 6

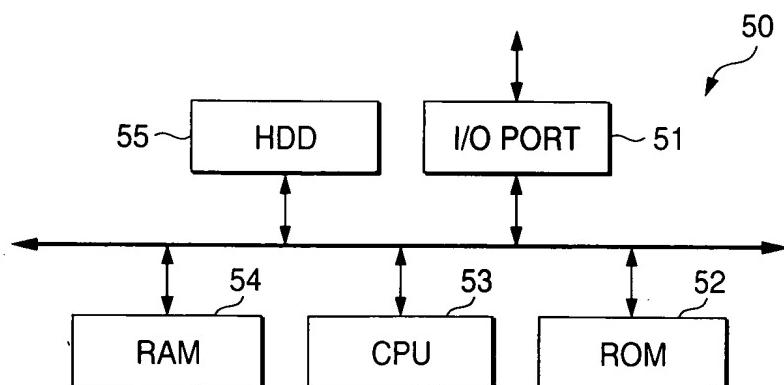


FIG. 7

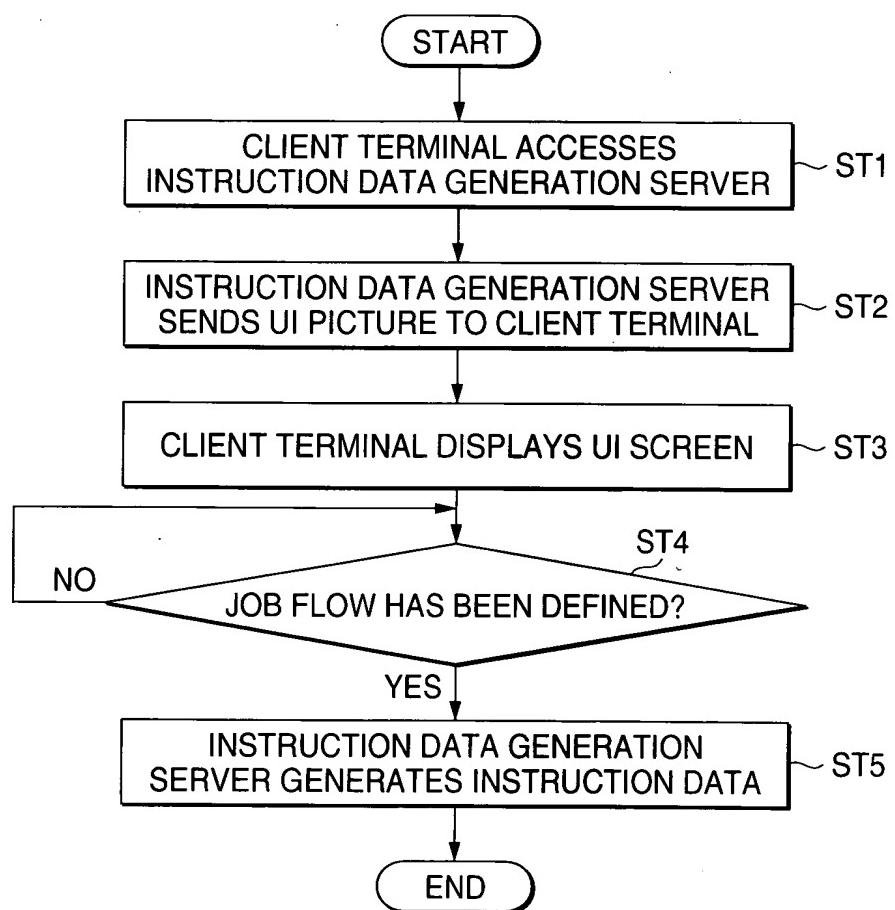


FIG. 8

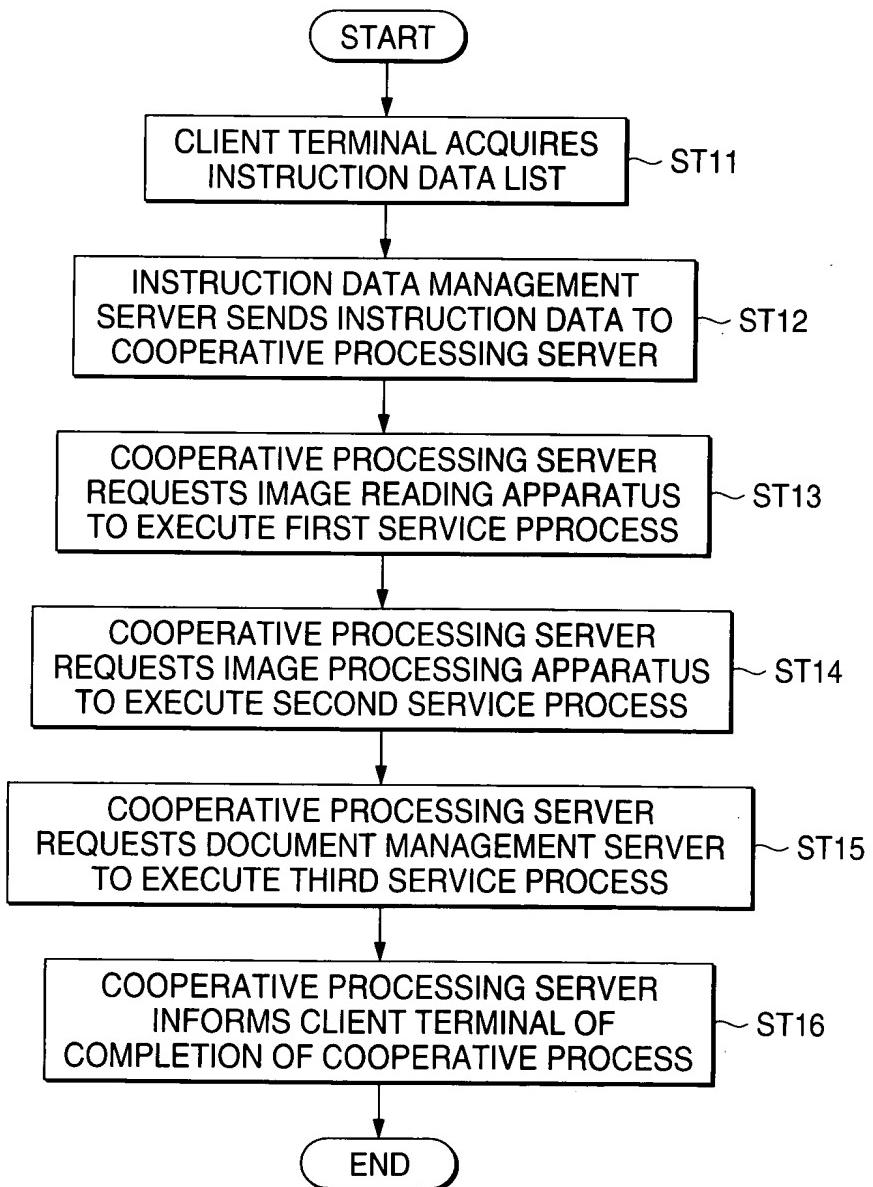


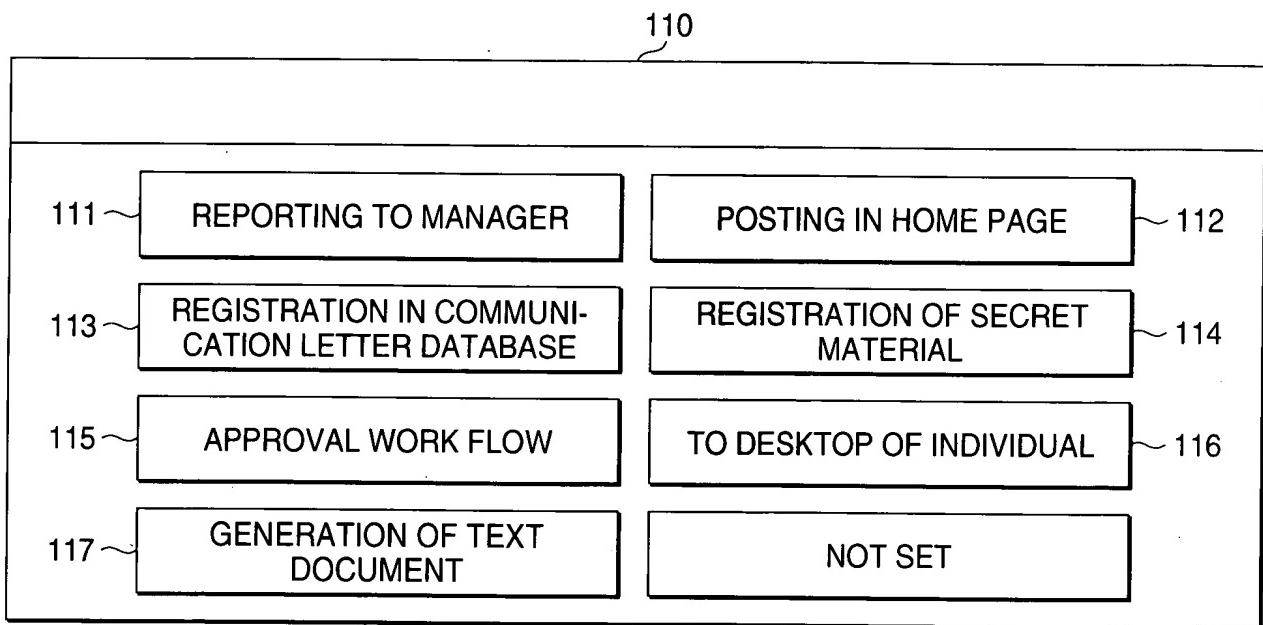
FIG. 9

FIG. 10

```
< ! - INSTRUCTION DATA AT START -- >
< Flow id = "0123456789" >
  < exec >
    < service name = "SCAN" >
      < param name = "RESOLUTION" value = "300" / >
    < / service >
    < service name = "OCR" >
      < param name = "POLICY" value = "SPEED PRIORITY" / >
    < / service >
    < service name = "STORAGE" >
      < param name = "LOCATION" value = "ftp: // server / folder" / >
    < /service >
  < / exec >
  < log >
  < / log >
< / Flow >
```

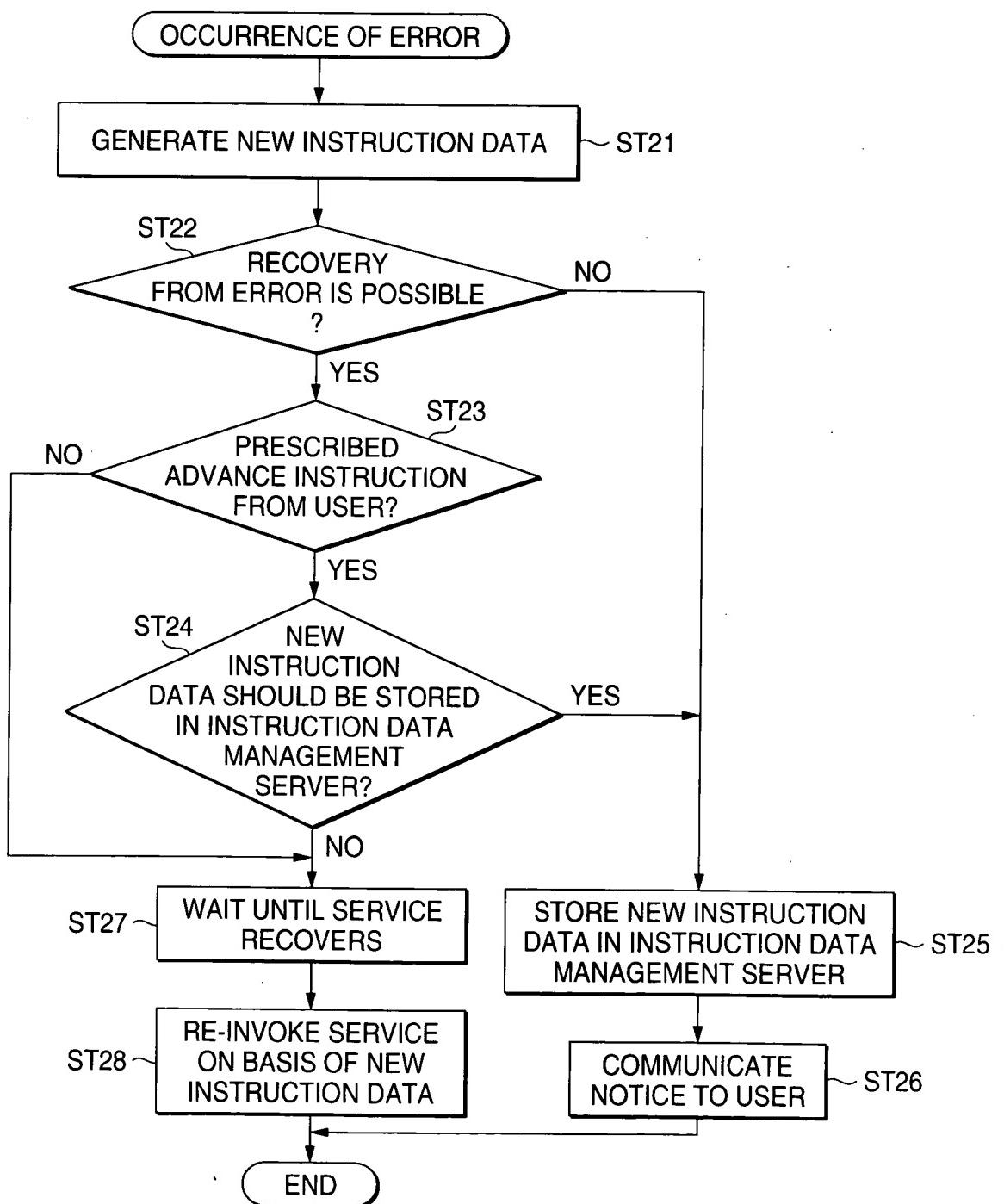
FIG. 11

```
< ! - INSTRUCTION DATA AFTER END OF FIRST SERVICE -- >
< Flow id = "0123456789" >
  < exec >
    < service name = "OCR" >
      < param name = "POLICY" value = "SPEED PRIORITY" / >
    < / service >
    < service name = "STORAGE" >
      < param name = "LOCATION" value = "ftp: // server / folder" / >
    < / service >
  < / exec >
  < log >
    < service name = "SCAN" >
      < result value = "SUCCESS" / >
    < / service >
  < / log >
< / Flow >
```

FIG. 12

```
< ! - NEW INSTRUCTION DATA GENERATED AFTER FAILING IN PERFORM IN SECOND SERVICE --->
< Flow type = "once" reserved-id = "0123456789" >
< exec >
  < service name = "OCR" >
    < param name = "POLICY" value = "SPEED PRIORITY" />
  < /service >
  < service name = "STORAGE" >
    < param name = "LOCATION" value = "ftp://server/folder" />
  < /service >
< / exec >
< document >
  < location type = "temporary" / >
< /document >
< log >
  < Flow id = "0123456789" >
    < exec >
      < service name = "STORAGE" >
        < param name = "LOCATION" value = "ftp://server/folder" />
      </service >
    < / exec >
    < log >
      < service name = "SCAN" >
        < result value = "SUCCESS" />
      </service >
      < service name = "OCR" >
        < result value = "TIME-OUT ERROR" />
      </service >
    < / log >
  < / Flow >
< / log >
< / Flow >
```

FIG. 13



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FIG. 14

```
< ! - INSTRUCTION DATA WITH SUBSTITUTIVE CONDITION -->
< Flow >
  < exec >
    < service name = "FORMAT CONVERSION" >
      < param name = "FORMAT" value = "PDF" / >
      < substitutive-condition name = "USE FEE" value = "100YEN OF LESS" / >
    < /service >
  < / exec >
  < log >
  < / log >
< / Flow >
```

FIG. 15

```
< ! - INSTRUCTION DATA WITH POSSIBILITY OF RESTART -->
< Flow >
  < exec >
    < service name = "FORMAT CONVERSION" >
      < param name = "FORMAT" type = "PDF" / >
      < restartable value = "false" / >
    < /service >
  < / exec >
  < log >
  < / log >
< / Flow >
```

FIG. 16

```
< ! - INSTRUCTION DATA WITH SUBSTITUTIVE CONDITION AND POSSIBILITY OF START -->
< Flow >
  < exec >
    < service name = "FORMAT CONVERSION" >
      < param name = "FORMAT" value = "PDF" / >
      < substitutive-condition name = "USE FEE" value = "100YEN OF LESS" / >
      < restartable value = "false" / >
    < /service >
  < / exec >
  < log >
  < / log >
< / Flow >
```

FIG. 17

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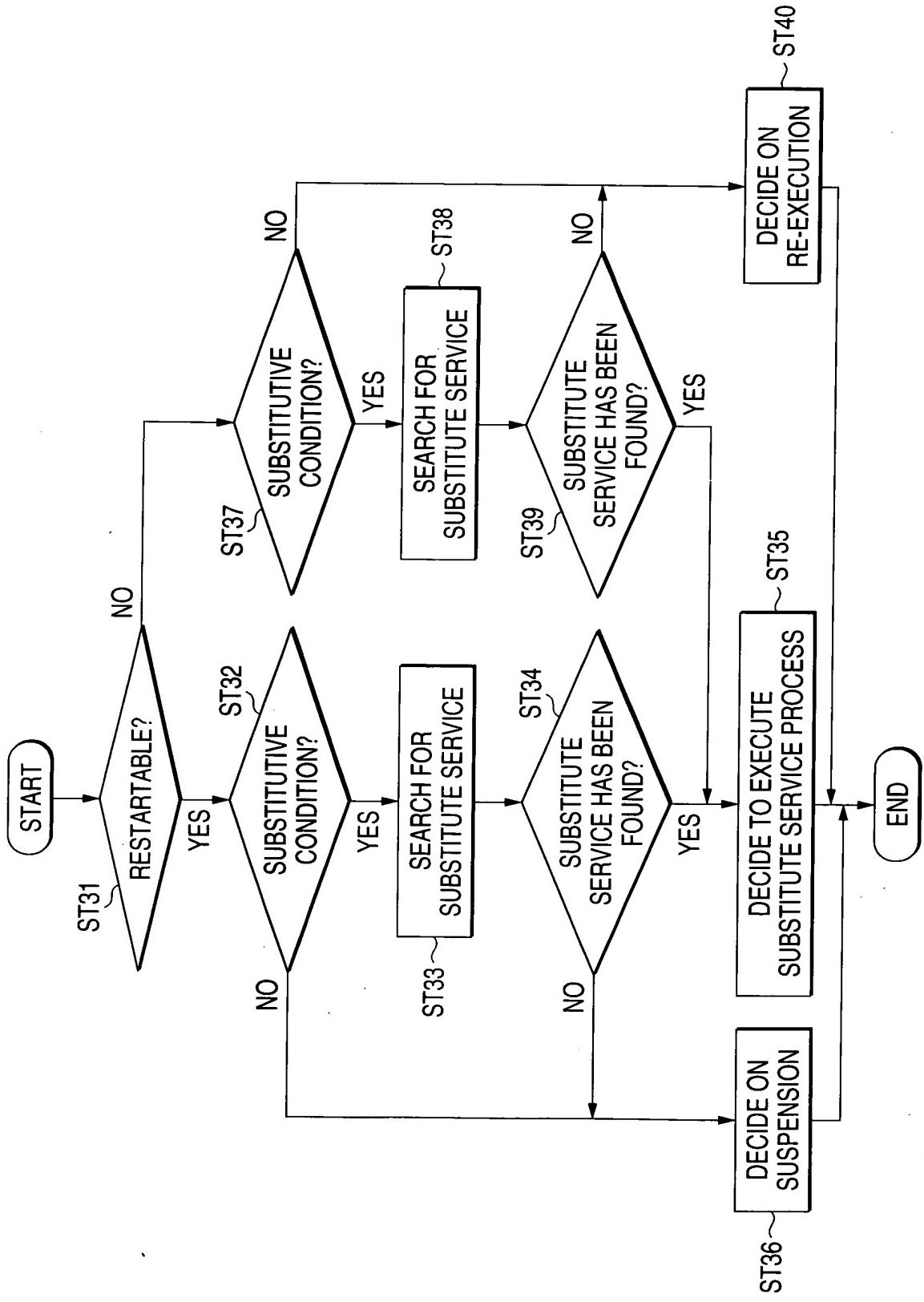


FIG. 18

SUBSTITUTE CONDITION RESTARTABLE	PRESENT		ABSENT
	SUBSTITUTE SERVICE IS FOUND BY SEARCH	NO SUBSTITUTE SERVICE IS FOUND BY SEARCH	
TRUE	SUBSTITUTE SERVICE	SUBSTITUTE SERVICE → SUSPENSION	SUSPENSION
FALSE	SUBSTITUTE SERVICE	SUBSTITUTE SERVICE → RE-EXECUTION	RE-EXECUTION